REMARKS/ARGUMENTS

Claims 1-9, 12-27, 30-45, 48-63, 66-81, and 84-120 are pending in the application. Applicants have amended the independent claims by combining claims 111, 113, 115, 117, and 119, respectively, into them. Applicants submit that these amendments raise no new issues requiring further consideration and/or search, and accordingly respectfully request entry of these amendments..

The Examiner has rejected the elected claims, including claims 111-120 which Applicants added in their last response, under 35 U.S.C. § 103(a) as unpatentable over Applicants' Fig. 3 in view of USP 6,738,205 (Moran). Applicants respectfully traverse this rejection and request reconsideration and allowance in view of the following arguments.

Before proceeding to a discussion of the merits of the Examiner's rejection, Applicants have two comments concerning the Examiner's remarks in the Office Action.

1. Relative to the discussion of Applicants' election of species (Office Action, p. 6), in the last response Applicants expressly avoided making any admission regarding relationship among species, or lack of patentable distinctness among species. Applicants made their comments to highlight a salient point regarding restriction and election practice. If an applicant states on the record that species are not patentably distinct, the Examiner could be entitled to construe such a statement as an admission that the Examiner then could use to apply prior art that otherwise might not be applied. Therefore, contrary to the Examiner's statement, there can be a nexus between a restriction requirement and whether claims are satisfied by art under 35 USC 102/103.

2. Near the bottom of page 6 of the Office Action, the Examiner says that, at page 18, lines 9-11 of their response Applicants stated that "Moran does provide an arrangement and process that does produce an analog adjustment signal". Applicants made no such statement. For purposes of their argument, Applicants were willing to assume that Moran provided such an arrangement. Such an assumption is very different from making a flat statement.

Turning now to the merits of the Examiner's rejection, the Examiner appears to have made clear that he is relying on Applicants' prior art Fig. 3 as teaching the claimed CTF, ADC, and DFT, and that he is relying on Moran only for the alleged teaching of a filter as claimed. The Examiner then points to a CTF 128 in Fig. 24 of Moran. Applicants note that Moran describes the purpose of CTF 128 as something that "limits the system noise and pre-shapes the read signal" (col. 30, lines 53-55). This is not the same function as the function claimed for the CTF in the present application.

The Examiner also points to a phase signal processor (PSP) 210 in Fig. 24 of Moran as a discrete Fourier transform (DFT). Applicants note that Moran describes the output of the PSP as going to a phase compute circuit 216 in Fig. 24. The output of the phase compute circuit 216 can be used to correct radial positioning of a read head.

Moran states that the PSP 210 "computes the phase components needed for e.g. software based phase compute. The phase signal processor (PSP) 210 whose inputs are derived from the data detector 206, computes the even and odd samples of the printed pattern waveform samples, using a correlated detector that detects the sine and cosine values of the burst 52 signals (e.g., chevrons 52 in spokes 11 of the pattern 12). As such, the PSP 210 integrates the samples that represent the sine values and integrates the samples that represent the cosine values, averages those samples, and creates accurate sine and cosine numbers which are provided to the phase compute 216 in the controller 17 via the buffer 212." Moran, col. 23, lines 27-42 Thus, the output of the PSP is not an analog adjustment signal as claimed in the present application.

As for the claimed filter, it is not clear on what element the Examiner is relying. The Examiner pointed to element 202 in Fig. 24, but that is an analog to digital converter, not a filter. The Examiner then referred to harmonic signal processor (HSP) 204, but as seen in Fig. 20, that comprises two bandpass filters (biquads 220) and a downsampler 222. Moran states that this HSP "is used in conjunction with the corresponding Phase Detector 206 (e.g., zero-crossing detection system) for extracting the fundamental frequency of the readback waveform of pattern 12, by equalizing and attenuating certain harmonics of the read waveform using the lowpass digital filter 220". Moran, col. 20, lines 14-24.

In their previous response, Applicants pointed to col. 38, lines 5-39 of Moran, and to the description of Figs. 28-31, showing attenuation of the first and third harmonics of the read signal. Apparently, for purposes of this Office Action, the Examiner has equated attenuation with the substantial elimination that Applicants have claimed in the independent claims of the present application. Applicants respectfully disagree with the Examiner's characterization, and note that the Examiner has provided no basis for this statement.

Looking more closely at this description in Moran, Moran states that the first harmonic, which does not interfere with processing of servo burst phases, is attenuated by 10 dB. Moran, col. 38, lines 20-23. In contrast, Moran states that the third harmonic, which is an undesirable signal component, is attenuated by 20 dB. Moran, col. 38, lines 23-27.

According to the claimed invention, the claimed filter substantially eliminates plural harmonics. From the discussion in Moran, this clearly is not the case. While Applicants do not concede that the 20 dB attenuation of the third harmonic in Moran equates to substantial elimination, solely for purposes of this argument Applicants would acknowledge that the 20 dB attenuation of the third harmonic is more significant, in this context, than is the 10 dB attenuation of the first harmonic. Indeed, since Moran acknowledges that the first harmonic does not interfere with the processing of servo burst phases, Moran has no need to eliminate that harmonic. To suggest otherwise is to rely on hindsight, looking solely at the teachings of the present application.

On that basis, then, Applicants submit that Moran does not teach substantial elimination of multiple harmonics, as the independent claims of the present application (and hence their dependencies) require. At most, Moran might (again, solely for purposes of this argument) teach such treatment of the third harmonic, but that is still a single harmonic and not multiple harmonics.

Applicants submit that Moran actually teaches away from substantial elimination of plural harmonics. Thus, in order for the Examiner to infer otherwise, the Examiner would have to rely on hindsight, which is an impermissible basis on which to conclude that a claimed invention would have been obvious. However, as Applicants pointed out in their last response, in determining obviousness, the claimed subject matter must be considered as a whole without the benefit of hindsight, and the claims must be considered in their entirety. *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275, 69 USPQ2d 1686, 1690 (Fed. Cir. 2004); *W.L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983). In order to avoid "hindsight" reconstruction of a claimed combination, there must be some motivation or suggestion for the ordinary artisan to modify or combine elements found in the prior art, to make the new claimed combination. *Ruiz, supra,* 357 F.3d at 1275, 69 USPQ2d at 1690.

In order to make out a *prima facie* case of obviousness, the prior art must teach or suggest the desirability of such a modification. *Custom Accessories, Inc. v. Jeffrey-Allan Indus.*, 807 F.2d 955, 959, 1 USPQ2d 1196, 1198 (Fed. Cir. 1986). Since Moran says that the first harmonic is not problematic in the context of processing of position error signals, Moran provides no such teaching or suggestion. As a result, the Examiner is left to say at most that it would have been "obvious to try" the claimed placement. However, "obvious to try" is not the proper standard for obviousness. *In re Geiger*, 815 F.2d 686, 2 USPQ2d 1276 (Fed. Cir. 1987).

Request for Allowance

It is believed that this Amendment places the application in condition for allowance, and early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the telephone number listed below.

The Office is hereby authorized to charge any fees, or credit any overpayments, to Deposit Account No. **11-0600**.

Respectfully submitted,
KENYON & KENYON

Dated: July 3, 2006

By: /Frank L. Bernstein/
Frank L. Bernstein
Reg. No. 31,484

Customer No. 44990

KENYON & KENYON
333 West San Carlos St., Suite 600
San Jose, CA 95110
Telephone: (408) 975-7500
Facsimile: (408) 975-7501